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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Christopher J. Chase, *et al.*

Serial No: 09/911,119

Group Art Unit: 2876

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Examiner: Ahshik Kim

Title: APPARATUS AND METHODS  
FOR DETERMINING  
BIOMOLECULAR  
INTERACTIONS

RESPONSE

Assistant Commissioner for Patents  
Washington, DC 20231

RESPONSE TO THE EXAMINER'S OFFICE ACTION

In reply to the Office Action dated January 21, 2003, designated as Paper No. 8 in the above-captioned application, please enter the following amendments and Remarks as follows:

In the Claims

Please cancel claims 4, 6, and 7.

Please rewrite claims 1, 5, and 8, according to the following:

1. A molecular detection apparatus comprising:  
a first compartment containing at least a ligand or a receptor;  
a second compartment adjacent said first compartment;  
a boundary area disposed between said first and second compartments;  
a sensing area; and  
means for detecting the diffusion of a molecule proximate the sensing area.

5. The molecular detection apparatus of claim 1, wherein the first compartment contains a matrix material.

8. The molecular detection apparatus of claim 1, wherein the ligand molecule is smaller than the receptor molecule and wherein the boundary area includes a membrane operative to allow ligand molecules to pass therethrough and to prevent passage of receptor molecules.

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